IN THE CLAIMS

This listing of claims replaces all prior versions, and listings, in this application.

1. (original) A method for detecting Paget disease of bone by associating Paget disease of bone with the mutation of a gene coding a chondroitin synthase gene or the amount of expression of said gene.

2. (original) The method for detecting Paget disease of bone according to claim 1, wherein the chondroitin synthase is a glycosyltransferase having activity for transferring a D-glucuronic acid residue or an N-acetyl-D-galactosamine residue to the saccharide residue at the non-reducing terminal of chondroitin.

3. (previously presented) The method for detecting Paget disease of bone according to claim 1, wherein the chondroitin synthase is a glycosyltransferase by means of which a xylose residue linked to an amino acid residue has D-galactose linked thereto by a β1,4-glycoside linkage.

4. (original) The method for detecting Paget disease of bone according to claim 1, wherein the chondroitin synthase gene is a gene comprising the nucleotide sequence depicted in any one of SEQ ID NO: 1, SEQ ID NO: 3, SEQ ID NO: 5, SEQ ID NO: 65, SEQ ID NO: 67 or SEQ ID NO: 69.

5. (original) A knockout animal wherein a glycosyltransferase gene comprising the amino acid sequence depicted in any one of SEQ ID NO: 2, SEQ ID NO: 4, SEQ ID NO: 6, SEQ ID NO: 66, SEQ ID NO: 68 or SEQ ID NO: 70 or any one of the amino acid sequences homologous thereto is partly or completely suppressed in expression.

6. (new) The method for detecting Paget disease of bone according to claim 1, wherein the chondroitin synthase gene encodes the amino acid sequence depicted in any one of SEQ ID NO: 2, SEQ ID NO: 4, SEQ ID NO: 6, SEQ ID NO: 66, SEQ ID NO: 68 or SEQ

ID NO: 70.